

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A method for the automatic parameterization of measuring systems for the measurement of objects transported by means of a transport device (11), ~~in particular volume measurement systems,~~ comprising:

detecting at least one image using ~~at least one sensor (13, 15) for electromagnetic radiation, in particular a laser scanner,~~ wherein said at least one image is at least one-dimensional and comprises picture elements (17) of a test object (19) known at least in part to the measuring system with respect to its dimensions and located in a measuring zone of the measuring system; and

determining ~~system~~ parameters associated with the laser scanner which are required for the measurement of objects ~~are determined~~ from the image and the known dimensions of the test object (19); and

storing the parameters in a memory device of the measurement system.

2. (Original) A method in accordance with claim 1, further comprising:
detecting an image of the transport device (11) with the test object (19);
detecting an image of the transport device (11) without the test object using said at least one sensor (13, 15); and
comparing the image with the test object (19) with the image without the test object.

3. (Original) A method in accordance with claim 1, wherein the system parameters are determined from a gradient of a straight line (21, 35) formed by picture elements (17) of the image.

4. (Currently Amended) A method in accordance with claim 1, wherein the system parameters include at least one of an angle of rotation and a vertical spacing of said at least one sensor (13, 15) from the transport device (11), in particular a transport surface (23) of the transport device (11).

5. (Currently Amended) A method in accordance with claim 1, wherein the test object (19) is positioned in a position relative to the transport device (11) known to the measuring system at least in part, and wherein a position of the sensor (13, 15) is determined relative to the transport device (11), in particular a transport surface (23) of the transport device (11).

6. (Currently Amended) A method in accordance with claim 1, wherein the test object (19) is in particular moved through the measuring zone of the measuring system at a constant speed, and wherein a plurality of images are sequentially detected by the moved test object (19) in particular at a constant frequency.

7. (Original) A method in accordance with claim 6, wherein the transport speed of the transport device (11) is determined from the sequentially detected images.

8. (Original) A method in accordance with claim 7, wherein at least one of a contour (25, 27) gained from the sequentially detected images and an angle of the test object (19) is compared with a corresponding at least one of a known actual contour and a known angle of the test object (19) for the determination of the transport speed.

9. (Original) A method in accordance with claim 6, wherein a plurality of sensors (13, 15) are used, the method further comprising:

sequentially detecting a plurality of images of the moved test object (19) by each sensor (13, 15);

determining a contour (25, 27) of the test object (19) from the sequentially detected images for each sensor (13, 15);

combining the contours (25, 27) of the sensors (13, 15); and

determining positions of the sensors (13, 15) relative to one another based on the combination of the contours (25, 27) of the sensors (13, 15).

10. (Original) A method in accordance with claim 1, wherein a border of the measuring zone of the measuring system is fixed in an automated manner by positioning the test object (19) at a corresponding border.

11. (Original) A method in accordance with claim 1, wherein precisely one test object (19) is used.

12. (new) A method for determining an orientation of a laser scanner of a measuring system in relation to a transport device used to transport objects measured by the measuring system, comprising:

capturing an image of a test object being transported by the transport device using a laser scanner, wherein dimensions of the test object are known to the measuring system and the image having picture elements which correlate to the test object along at least one known dimension;

determining a metric that defines orientation of the laser scanner in relation to the transport device from the known dimensions of the test object and the image of the test object; and

storing the metric in a memory device of the measurement system.